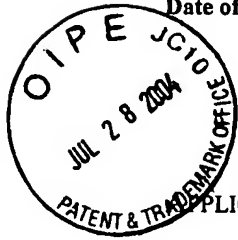


Express Mail Label No.: EV312711522US  
Date of Deposit: July 28, 2004

Attorney Docket No.: 23239-537 (ARC-37)



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Epstein et al.  
SERIAL NUMBER: 10/627,543 EXAMINER : Not Yet Assigned  
FILING DATE: July 25, 2003 ART UNIT : 1645  
FOR: REGULATED APTAMER THERAPEUTICS

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

TRANSMITTAL LETTER

Transmitted herewith for filing in the above-referenced patent application are the following documents:

1. Information Disclosure Statement (2 pages), in duplicate;
2. Modified Form 1449/PTO (4 pages), in duplicate;
3. Copies of cited references A3-A24, B1-B10, and C2-C71; and
4. Return postcard.

If the enclosed papers are considered incomplete, the Mail Room and/or the Application Branch is respectfully requested to contact the undersigned at 617-542-6000, Boston, Massachusetts.

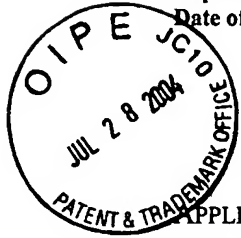
Applicants believe that no fee is due. However, the Commissioner is authorized to charge any fees that may be due, to the undersigned's account, Deposit Account No. 50-0311 Ref. No. 23239-537 (ARC-37). A duplicate copy of this transmittal letter is enclosed herewith.

Respectfully submitted,

*for R. Ehrifi, Reg. No. 39,529*  
for R. Ehrifi, Reg. No. 39,529  
Attorney for Applicants  
MINTZ, LEVIN, COHN, FERRIS,  
GLOVSKY and POPEO, P.C.  
One Financial Center  
Boston, Massachusetts 02111  
Tel: (617) 542-6000  
Fax: (617) 542-2241

Dated: July 28, 2004

Please address all correspondence to Customer Number 30623



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

APPLICANT: Epstein et al.  
SERIAL NUMBER: 10/627,543 EXAMINER : Not Yet Assigned  
FILING DATE: July 25, 2003 ART UNIT : 1645  
FOR: REGULATED APTAMER THERAPEUTICS

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT**

Pursuant to the duty of disclosure under 37 C.F.R. §§1.56, 1.97 and 1.98, Applicants hereby make of record the documents listed on the attached modified Form PTO-1449, as well as copies of the listed documents.

This Information Disclosure Statement is being filed before the mailing of a first Office Action on the merits in the above-identified case.

It is respectfully requested that the Examiner consider completely the cited information, along with any other information, in reaching a determination concerning the patentability of the present claims, and signs the enclosed form PTO-1449 to evidence that the cited information has been fully considered by the Patent and Trademark Office during the examination of this application.


By submitting this Information Disclosure Statement, the Applicants make no representation that: (1) a search has been performed, of the extent of any search performed, or that more relevant information does not exist; (2) the information cited in the Statement is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56(b); and (3) the information cited in the Statement is, or is considered to be, in fact, prior art as defined by 35 U.S.C. §102.

APPLICANT: Epstein et al.  
U.S.S.N.: 10/627,543

Notwithstanding any statements by the Applicants, the Examiner is urged to form his/her own conclusion regarding the relevance of the cited information. An early and favorable action is hereby requested.

Applicants believe that no fee is due. However, the Commissioner may charge any fees that may be due, to Deposit Account No. 50-0311, Reference No.: 23239-537 (ARC-37).

Respectfully submitted,

  
Joseph R. Elrifi, Reg. No. 39,529  
Attorney for Applicants  
MINTZ, LEVIN, COHN, FERRIS,  
GLOVSKY and POPEO, P.C.  
One Financial Center  
Boston, Massachusetts 02111  
Tel: (617) 542-6000  
Fax: (617) 542-2241

Dated: July 28, 2004

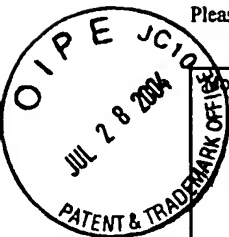
Please address all correspondence to Customer Number 30623

TRA 1942845v1

Date of Deposit: July 28, 2004

Please type a plus sign (+) in this box

+



Modified Form 1449/PTO

### INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Application Number	10/627,543
Filing Date	July 25, 2003
First Named Inventor	Epstein
Group Art Unit	1645
Examiner Name	Not Yet Assigned
Attorney Docket Number	23239-537

### U.S. PATENT DOCUMENTS

Exam Initials	Cite No.	U.S. Patent Document No.	Issue Date	Name of Patentee(s) or Applicant(s)	Class	Sub Class	Filing Date If Appropriate
	A3	5,270,163	12/14/93	Gold et al.			
	A4	5,475,096	12/12/95	Gold et al.			
	A5	5,476,766	12/19/95	Gold et al.			
	A6	5,496,938	3/5/96	Gold et al.			
	A7	5,567,588	10/22/96	Gold et al.			
	A8	5,580,737	12/3/96	Polisky et al.			
	A9	5,637,459	6/10/97	Burke et al.			
	A10	5,648,214	7/15/97	Nieuwlandt et al.			
	A11	5,660,985	8/26/97	Pieken et al.			
	A12	5,672,695	9/30/97	Eckstein et al.			
	A13	5,683,867	11/4/97	Biesecker et al.			
	A14	5,698,687	12/16/97	Eckstein et al.			
	A15	5,705,337	1/6/98	Gold et al.			
	A16	5,707,796	1/13/98	Gold et al.			
	A17	5,763,177	6/9/98	Gold et al.			
	A18	5,817,635	10/6/98	Eckstein et al.			
	A19	5,859,228	1/12/99	Janjic et al.			
	A20	5,958,691	9/28/99	Pieken et al.			
	A21	6,011,020	1/4/00	Gold et al.			
	A22	6,051,698	4/18/00	Janjic et al.			
	A23	5,589,332	12/31/96	Shih, et al.			
	A24	5,834,186	11/10/98	George, et al.			

### FOREIGN PATENT DOCUMENTS

Exam Initials	Cite No.	Foreign Patent Document Office Number	Name of Patentee(s) or Applicant(s)	Date of Publication	Translation Yes No
	B1	WO 98/08974	Intelligene Ltd.	03/05/98	
	B2	WO 98/27104	Yale University	06/25/98	
	B3	WO 01/66721	Ribozyme Pharmaceuticals, Inc.	09/13/01	
	B4	WO 00/70329	Brandeis University	11/23/00	
	B5	WO 99/31276	Nexstar Pharmaceuticals, Inc.	6/24/99	

Date of Deposit: July 28, 2004

FOREIGN PATENT DOCUMENTS						
Exam Initials	Cite No.	Foreign Office	Patent Document Number	Name of Patentee(s) or Applicant(s)	Date of Publication	Translation Yes No
	B6	WO	03/014375	Archemix Corporation	2/20/03	
	B7	WO	02/22882	Archemix Corporation	3/21/02	
	B8	WO	91/19813	The University of Colorado Foundation, Inc.	12/26/91	
	B9	WO	92/07065	Max-Planck-Gesellschaft Zur Förderung Der Wissenschaften E.V.	4/30/92	
	B10	WO	98/18480	Nexstar Pharmaceuticals, Inc.	5/7/98	

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS		
Exam Initials	Cite No.	Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc.
	C2	Breaker (1997). Nat Biotech 15: 427-431.
	C3	Breaker (1997). Chem Rev 97: 371-390.
	C4	Breaker (1999). Intracellular Ribozyme Applications in Principles and Protocols, pgs. 1-19; Horizon Press, Wymondham UK, Rossi and Couture, eds.
	C5	Breaker (2002). Curr Opin Biotech 13: 31-39.
	C6	Breaker (1997). Curr Opin Biotech 1: 26-31
	C7	Carmi, et al. (1996). Chem and Biol 3: 1039-1046.
	C8	Gold (2002). Nat. Biotech 20: 671-672
	C9	Hamaguchi, et al. (2001). Anal Biochem 294: 126-131.
	C10	Hartig, et al. (2002). Nat Biotech 20: 717-722.
	C11	Jenne, et al. (2001). Nat Biotech 19: 56-61.
	C12	Koizumi, et al., (1999). Nat Struct Biol 6: 1062-1071.
	C13	Li and Breaker (1999). Curr Opin Struct Biol 9: 315-323.
	C14	Li and Breaker (1999). Proc Natl Acad Sci USA 96: 2746-2751.
	C15	Marshall and Ellington (1999). Nat Struct Bio 6 11: 992-994.
	C16	Robertson and Ellington (1999). Nat Biotech 17: 62-66.
	C17	Robertson & Ellington (2000) 3 Nucleic Acids Res 28: 1751-1759.
	C18	Robertson and Ellington (2001). Nat Biotech 19: 650-655.
	C19	Seetharaman, et al. (2001). Nat Biotech 19: 336-341.
	C20	Soukup and Breaker (1999). Proc Natl Acad Sci USA 96: 3584-3589.
	C21	Soukup and Breaker (1999). RNA 5: 1308-1325.
	C22	Soukup and Breaker (1999). Structure 7: 783-791.
	C23	Soukup and Breaker (1999). Tren Biotech 17: 469-476.
	C24	Soukup and Breaker (2000) in Ribo Biochem Biotech, Eaton Publ: 149-170, Krupp & Gaur, eds.
	C25	Tang and Breaker (1997). Chem Biol 4: 453-459.
	C26	Tang and Breaker (1998). Nuc Acids Res 26: 4214-4221.
	C27	Tang and Breaker (1997). RNA 3: 914-925.
	C28	Koizumi, et al., (1999). Nucleic Acids Symp Ser 42:275-276.

Date of Deposit: July 28, 2004

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS		
Exam Initials	Cite No.	Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc.
	C29	Potyraiio et al., (1998). Anal Chem, 70: 3419-3425 .
	C30	Seiwert, et al., (2000). Chem Biol 7: 833-843.
	C31	Soukup, et al., (2000). Journal of Molecular Biology 298: 623-632 .
	C32	Sassanfar & Szostak, (1993). Nature 363: 550-553.
	C33	Soukup et al., (2001). RNA 7: 524-536.
	C34	Sproat et al., (1990). Nuc Acids Res 19: 733-738.
	C35	Cotten et al., (1991). Nuc Acids Res 19: 2629-2635.
	C36	Hobbs et al., (1973). Biochemistry 12: 5138-5145.
	C37	Pagratis et al., (1997). Nat Biotechnol 15: 68-73.
	C38	Kraus et al., (1998). Journal of Immunology 160: 5209-5212.
	C39	Pieken et al., (1991). Science 253: 314-317.
	C40	Lin et al., (1994). Nucl Acids Res 22: 5529-5234.
	C41	Jellinek et al., (1995). Biochemistry 34: 11363-11372.
	C42	Soukup and Breaker, (1999). Structure Fold Des 7: 783-791.
	C43	Steele-Perkins and Roth, (1990). J. Biol. Chem. 265: 9458-9463.
	C44	Vuyisich and Beal, (2002). Chemistry and Biology 9: 907-913.
	C45	McCollum and Gould, (2001). Trends Cell Biol 11: 89-95.
	C46	Ambros, (2000). Curr. Opin. Genet. Dev. 10: 428-433.
	C47	Lee and Ambros, (2001). Science 294: 862-864.
	C48	Wilson and Szostak, (1999). Annu. Rev. Biochem. 66: 611-647.
	C49	Hermann and Patel, (2000). Science 287: 820-825.
	C50	Jenison, et al., (1994). Science 263: 1425-1429
	C51	Soukup and Breaker, (1999). Proc Natl. Acad. Sci. 28: 3584-3589.
	C52	Robertson and Ellington, (2000). Nucleic Acids Res. 28: 1751-1759.
	C53	Piganeau et al., (2000). Angew Chem. Int. Ed. 39: 4369-4373.
	C54	Hartig et al., (2002). Nat. Biotechnol. 20: 717-722.
	C55	Koizumi et al., (1999). Nat. Struct. Biol. 6: 1062-1071.
	C56	Chestanga and Lindahl, (1979). Nucl Acids Res. 10: 3673-3684
	C57	Boiteux et al., (1990). J. Biol. Chem. 265: 3916-3922.
	C58	David and Williams, (1998). Chem. Rev. 98: 1221-1261.
	C59	Tchou et al., (1991). Proc. Natl. Acad. Sci. USA 88: 340-348.
	C60	Moazed and Noller, (1987). Nature 327: 389-394.
	C61	Yoshizawa et al., (2002). Biochemistry 41: 6263-6270.
	C62	Carter et al., (2000). Nature 407: 340-348.
	C63	Wallis, et al., (1995). Chem. Biol. 2: 543-552.
	C64	Leipold, et al., (2000). Biochemistry 39: 14984-14992.

Date of Deposit: July 28, 2004

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS		
Exam Initials	Cite No.	Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc.
	C65	Zharkov et al., (1997). J. Biol. Chem. 5335-5342.
	C66	Mathews et al., (1999). J. Mol. Biol. 288: 911-940.
	C67	Famulok et al., (2001). Chem. Biol. 8: 931-939.
	C68	Ellington and Szostak, (1990). Nature 346: 818-822
	C69	Hermann, (2000). Angew. Chem. Int. Ed. 39: 1890-1905
	C70	Thomas et al., (1997). J. Biol. Chem. 272: 27980-27986.
	C71	Breaker (1996). Curr Opin Biotech 7: 442-448.

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered.

Include copy of this form with next communication to applicant.

TRA 1942757v1